REMARKS

In the Office Action mailed August 12, 2003, claims 1-3, 5-10, 12-17 and 19-22 were finally rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,764,201 to Ranganathan, (hereafter, the '201 patent). As set forth below, anyone of ordinary skill in the art would recognize that the '201 patent does _not_ teach the pending claim limitations. The final rejection was therefore clearly improper.

The complete text of the pending claims can be found in the Preliminary Amendment and Response filed December 9, 2002. The text of the pending claims is omitted from this Response for brevity and clarity.

Anticipation under 35 U.S.C. §102 requires every claim limitation to found in a single reference, either expressly or inherently. With respect to the pending claims, the Applicant readily acknowledges that one element of the pending claims is a scaler and that element 64 in Fig. 8A of the '201 is a "scaler." Except for the scaler, none of the other limitations of the pending claims are found in the '201 patent and the rejection of the claims under §102(e) was improper. The limitations missing from the '201 patent are discussed in order below.

1. The '201 patent does not show a "programmable switching mechanism" as claimed.

The plain language of claim 1 recites a "programmable switching mechanism." The switching mechanism is claimed to be coupled to a video scaler. The programmable switching mechanism is further claimed by functional language that requires the switching mechanism to switch video data into _one_ of first and second display devices.

In rejecting claim 1 under §102(e), the Examiner stated in paragraph 5 of the Office Action that "Ranganathan _explicitly_ discloses a programmable switching mechanism [that switches] video data...into _one_ of first and second video overlay generators [Fig. 8A; 32 & 42]...." (Emphasis added.) On this point, the Examiner is clearly incorrect.

The Examiner contends that the multiplexor 68 of the '201 patent corresponds to the claimed switching mechanism and that the multiplexors 32 and 42 of the '201 patent correspond to the claimed video overlay generators, yet Fig. 8A of the '201 patent clearly shows the output of multiplexor 68 being connected to _both_ of the multiplexors 32 and 42. The '201 patent therefore does _not_ disclose a switching mechanism that functions to switch video data into _one_ of two display devices.

Anyone of ordinary skill in the art would recognize that the output of multiplexor 68 is routed to both multiplexors 32 and 42. The multiplexor 68 is *not* coupled to one display device as required by claim 1. The '201 patent therefore does not satisfy claim 1 under 35 U.S.C. §102(e). The Examiner's rejection of claim 1 under §102(e) as being anticipated by the '201 patent was therefore improper and should be withdrawn.

If the Examiner maintains the rejection, the Applicant asks the Examiner to explain how he construes Fig. 8A to satisfy the claim limitation that requires a programmable switching mechanism that routes or switches video data to only *one* display device.

2. The '201 patent does not disclose the claimed "video overlay generators."

The plain language of claim 1 recites that the claimed programmable switching mechanism, "[enables] *the display of*...video data from [the] video scaler and [the display of] *overlay data from* one of *the* ...*overlay generators*...." (Emphasis added.) Thus, the claim's plain language requires video overlay generators that are capable of *generating* video overlay data.

In rejecting claim 1 under §102(e), the Examiner asserted that the pixel multiplexors 32 and 42 can be "construed" as "video overlay generators." In paragraph 5, of the Office Action, the Examiner went on to state that "Ranganathan expressly discloses, 'Pixel muxes 32, 42 independently select either *movie overlay data* from YUV path 34 or graphics pixels from RGB path 36'." *Selecting* a video overlay data stream for display as taught by the '201 patent is not the same as *generating* video overlay data as claimed by the Applicant.

An invalidating reference under §102 either teaches what is claimed or it does not. The Examiner's assertion that pixel multiplexors can somehow be "construed" as "video overlay generators" is a wholly improper because the Examiner has *sua sponte* determined that a reference teaches whatever he says it does.

The plain language of claim 1 requires video overlay generators to *generate* video data. Everyone of ordinary skill in the art know that a multiplexor (also spelled as "multiplexer") does not and cannot *generate* data. A multiplexor selects or *switches* one or many input streams to an output and there is no way to construe a multiplexor as being capable of *generating* video data.

The Microsoft Computer Dictionary, Fourth Edition, copyright 1999 by Microsoft Press defines a multiplexer as a device for funneling several different streams of data over a common

communications line. The Computer Desktop Encyclopedia, copyright 2001 by The Computer Language Company defines a multiplexor as a device that merges several low-speed transmissions into one high-speed transmission.

Those of ordinary skill know that pixel multiplexors 32 and 42 could not possibly generate video data and therefore cannot function as the video overlay generators claimed in claim 1. If the Examiner maintains his position that the multiplexors 32 and 42 of the '201 patent generate video data, the Applicant requests the Examiner to explain how he construes the multiplexors 32 and 42 as being capable of generating data and to identify a reference in support of his construction.

The Examiner's rejection of claim 1 (and those that depend on claim 1) under §102(e) as being anticipated by the '201 patent was improper. The rejection should be withdrawn.

3. Dependent claim 2 is not shown in the '201 patent.

As for dependent claim 2, it claims that the programmable switching mechanism is a programmable register. The Examiner contends that claim 2 is invalid under §102(e), because the '201 patent anticipates claim 2 by element 67 in Fig. 8A.

A close reading of the text of col. 8, lines 37-38 reveals that the Examiner is incorrect.

Element 67 is described in the '201 patent specification as "mux control logic 67." See col. 9, line 38. Col. 8, lines 37-38 state that: "[a]n 8-bit register is used to generate...control bits *to* [the] mux control logic 67." Thus, element 67 is actually *not* a programmable register but it is some other sort of device that receives control signals from a register that is not shown in Fig. 8A.

Inasmuch as element 67 is not a programmable register, the rejection of claim 2 under §102(e) as being anticipated by the '201 patent is improper.

4. Dependent claim 3 is not shown in the '201 patent.

Paraphrased, dependent claim 3 claims first and second display engines that are responsive to first and second graphics data. It also claims first and second video overlay generators. The Examiner contends that claim 3 is invalid in view of the '201 patent and he contends that elements 52 and 53 of Fig. 8A correspond to the claimed display engines. He contends that elements 32 and 42 are video overlay generators.

As set forth above, elements 32 and 42 of Fig 8A are *not* video overlay generators nor are they even *capable* of generating video data.

As for elements 52 and 53, the Examiner has not identified any text of the '201 patent that describes these elements as being responsive to graphics data.

Inasmuch as elements 32 and 42 are not video overlay generators and elements 52 and 53 are not responsive graphics data, the rejection of claim 3 was improper under §102(e) and should be withdrawn.

5. *Claim 4 is not obvious.*

Claim 4 was rejected as being obvious in light of the '201 patent in view of Blahut, et al. U.S. Pat. No. 5,570,126 (the '126 patent).

Claim 4 indirectly depends on claim 1. Inasmuch as claim 4 includes all of the limitations of claim 1, it too is allowable over the prior art for the reasons set forth above with respect to claim 1.

6. *Claims 5 and 109 are not shown in the '201 patent.*

Paraphrased, dependent claim 5 claims a selectable video clock operatively coupled to the video scaler whereby the scaler scales input video in response to the clock signal from the selectable clock source. The Examiner contends that claims 5 and 19 are satisfied by the video clock source "VCLK" shown in Fig. 8B of the '201 patent. The Examiner is incorrect.

According to the Examiner, the scaler claimed in the pending claims is embodied by the scaler 64 in Fig. 8A of the '201 patent. Fig. 8B shows the VCLK signal line connected to the flip-flops 74 and 75, both of which are downstream from the scaler. The VCLK signal is *not* coupled to the scaler 64; it is coupled only to the latches 74 and 75

The rejection of claims 5 and 19 as being invalid under §102(e) was improper because the '201 patent does not teach or show a selectable clock source coupled to a scaler as claimed in claims 5 and 19.

7. *The rejection of claims 6, 12, and 20 is a non-sequitor.*

Paraphrased, claims 6 and 12 claim that the programmable switching mechanism facilitates programming the frame buffer. Paraphrased, claim 20 is a method claim directed to programming the frame buffer space.

The Examiner cited column 12, lines 4-12 of the '201 patent as ostensibly teaching the subject matter claimed in these claims. Even a cursory review of the text cited by the Examiner reveals that it has *nothing* to do with the subject matter claimed in claims 6, 12 and 20. The rejection of these claims under §102(e) was therefore improper and should be withdrawn.

> 8. *The rejection of claims 7, 13, and 21 is a non-sequitor.*

Paraphrased, claims 7, 13 and 21 are directed to switching between display-dependent clock signals that are coupled to a common video scaler line buffer. The Examiner cited column 4, lines 7-16 as ostensibly satisfying the limitations of these claims. The text cited by the Examiner has nothing to do with the subject matter claimed in claims 7, 13, and 21 and the rejection of these claims under §102(e) was improper.

Claims 8, 14 and 22 were also improperly rejected. These claims include all of the limitations of the independent claims but in addition, they are not anticipated by the '201 text cited by the Examiner.

Claims 9, 15 and 17 were improperly rejected for the reasons set forth above with respect to claims 1, 3, and 5.

As for dependent claims 11 and 18, these claims claim additional patentable subject matter and are not shown in the references for the reasons set forth above with respect to claim 4.

A timely Notice of Allowance is requested.

Respectfully submitted,

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Date: _Oct 6, 2003_

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